

**Notice of Allowability**

Application No.

09/552,150

Examiner

Lawrence B Williams

Applicant(s)

VANDENAMEELE, PATRICK

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 22 February 2005.
2. ☒ The allowed claim(s) is/are 1, 2, 6, 7, 9-31, 33-46, renumbered as 1-41, respectively.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

### **REASONS FOR ALLOWANCE**

1. The following is an examiner's statement of reasons for allowance: The instant application discloses a method and apparatus for transmitting data signals from terminals to a receiving terminal with spatial diversity receiving means. An exhaustive search of prior art records failed to disclose the method comprising "subband processing of the received data signals in the receiving terminal; and determining estimates of the respective data signals, on a subband by subband basis, from the subband processed received data signals in the receiving terminal, wherein said determining includes, for at least one data signal: selecting from the data signals a selected data signal; determining an estimate of the selected data signal from the subband processed received data signals; modifying the subband processed received data signals based on the estimate of the selected data signal; and determining estimates of the remaining data signals from the modified subband processed received data signals" or "transmitting one of the inverse subband processed combined data signals from each of the at least two transmitting means, wherein said inverse subband processed combined data signals form a different composite data signal at each of said at least two receiving terminals; receiving at each receiving terminal one of a plurality of composite data signals; determining at each receiving terminal an estimate of the data signal intended for the respective receiving terminal from the respective received composite data signal" as disclosed in claims 1, 17, 39 and 43 respectively. Neither does the prior art teach an apparatus for determining estimates of data signals comprising; "circuitry for receiving a data signal on each of the at least two receiving means, wherein the data signal received on the at least two receiving means are each a function of a transmitted signal and characteristics of the data signal define a spatial signature of the data signal;

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circuitry for subband processing, on a subband by subband basis, the data signal received on each of the at least two receiving means; and circuitry for determining estimates of the data signals from the subband processed received data signals” or “circuitry for inverse subband processing the combined data signals; and at least two spatial diverse transmitting means configured to transmit respective inverse subband processed combined data signals to at least two receiving terminals, wherein said inverse subband processed combined data signals form a composite data signal at each of said plurality of terminals” as taught in claims 29 and 33, respectively.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

## CONCLUSION

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence B Williams whose telephone number is 571-272-3037. The examiner can normally be reached on Monday-Friday (8:00-5:00).


If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lawrence B. Williams

lbw  
March 3, 2005

  
**AMANDA T. LE**  
**PRIMARY EXAMINER**